IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of	Group No. 1637
MAYO, *et al.*	Examiner: Kim, Young J.
Serial No. 09/837,886	**CERTIFICATE OF FACSIMILE TRANSMISSION**
Filed: April 18, 2001 .	I hereby certify that this correspondence, included listed enclosures, is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) 746-3172 on August 11, 2003.
For: *Apparatus and Method for Automated Protein Design*	Signature: _____ Diane M. Tsuda

RESPONSE TO OFFICE ACTION

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

This paper is being submitted in response to the Office Action mailed February 10, 2003. This response is filed on or before August 10, 2003, with a Petition for Three-Month Extension of Time and appropriate fees. The Commissioner is authorized to charge any additional fees, including any extension fees, which may be required, or credit any overpayment to Deposit Account No. 502325.

In the Claims:

Claim Listing

Claims 1-27 (Canceled)

28. (Currently Amended) A method executed by a computer under the control of a program, said computer including a memory for storing said program, said method comprising the steps of:

(A) receiving a protein ~~backbone~~ structure ~~with variable residue positions~~ of a desired target protein, said protein structure comprising:~~;~~

    i) a protein template structure comprising a protein backbone structure and at least one non-variable residue; and

    ii) a plurality of variable residue positions:

(B) establishing a group of potential amino acids side chains for a plurality of ~~for each of~~ said variable residue positions of said protein; and

(C) analyzing the interaction of all or part of each of said potential amino acids side chains from said group with all or part f the remainder of said protein ~~backbon~~ structure to

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